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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/509,291

09/23/2004

Lars Gronroos

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EXAMINER

CHOI, PETER Y

ART UNIT

PAPER NUMBER

1794

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/509,291	Applicant(s) GRONROOS ET AL.	
	Examiner Peter Y. Choi	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 14-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 18, 2008, has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-13 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-13 and 25, claims 1 and 25 recite that the “amount of filler used is 3 to 60% of an amount of solids” and “30% to 60% of the amount of solids”. It is unclear what the intended scope of the limitation is since the claims do not set forth any structure or amount of “solids”. The limitation attempts to compare the amount of filler as a percentage when viewed against an amount of solids, without providing a proper standard as to what amount of solids, if any, are present in the claimed invention.

Regarding claim 8, the claim recites that the components of the filler granule form a “fine and flexible coat that surrounds the inner part.” It is unclear what is intended by the limitations

“fine” and “flexible” as the terms are not defined by the specification and the terms are subjective without a standard of comparison or units to which a degree of fineness and a degree of flexibility are measured.

Response to Arguments

4. Applicants’ arguments filed June 18, 2008, have been fully considered but they are not persuasive. Applicants argue that the amount of solids is clear, since Applicants may use any style of expression or format of claim which makes clear the boundaries of the subject matter. Specifically, Applicants argue that the specification clearly states that the structure includes fibrous material, additives and auxiliary substances containing fillers, and therefore clearly states the amount of solids. Additionally, Applicants set forth that the specification details the amount of solids, the relationship between granulated filler and other fillers, and the relationship of the amount of solids to the rest of the fibrous pulp. Additionally, Applicants argue that the method of measuring fine and flexible associated with the recitation are well known in the art.

Regarding Applicants’ arguments, Examiner respectfully disagrees. The portion of the specification that Applicants specifically reference in the arguments is set forth below:

[0037]... Typically, the fibrous pulp contains 95% of water, and the amounts of fibre and additive are in the same proportion than in the finished fibrous product. Thus, 40 to 90% of the amount of solids is fibrous material, and 10 to 60% are additives and auxiliary substances (containing fillers).

The currently examined claim 1 is directed to a fibrous web containing a filler with the structure and composition set forth in the claim, wherein “the amount of filler used is 3 to 60% of an amount of solids.” It should be noted that the originally presented claims recited that “the

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amount of filler used is 3 to 60% of the amount of solids”. However, Applicants amended the claims in the submission of November 11, 2007, to recite the presently examined claim.

As set forth above, it is unclear what the intended scope of the limitation is since the claims do not set forth any structure or amount of “solids”. The limitation attempts to compare the amount of filler as a percentage when viewed against an amount of solids, without providing a proper standard as to what amount of solids, if any, are present in the claimed invention. The claimed invention does not recite exactly what “solids” are intended to be within the scope of the invention, such that the amount of filler is to be compared against. Additionally, Applicants' amendment of November 11, 2007, renders the claim indefinite since “an amount of solids” appears to reference solids which may be within or without the claimed invention. In other words, the scope of the claim requiring a certain amount of filler in comparison to any amount of any solids is indefinite since the claim appears to cover an amount of filler in comparison to solids which may or may not be within the scope of the claimed invention. As presently constructed, conceivably any solid could be used as a standard to which to compare the amount of filler. Therefore, it is unclear how the expression or format of the claim makes clear the boundaries of the subject matter since the claims, as presently constructed, do not appear to have any boundaries, thus rendering the claim indefinite.

Regarding Applicants' argument that the specification clearly states the structure of “solids”, Examiner respectfully disagrees. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. Additionally, Applicants are entitled to be their own lexicographer and may rebut the presumption that claim

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terms are to be given their ordinary and customary meaning by clearly setting forth a definition of the term that is different from its ordinary and customary meaning.

Although Applicants argue that the specification clearly states what “solids” entails, the term “solids” is not defined structurally in the claims. Additionally, the portion of the specification recited does not appear to specifically set forth what “solids” are intended by the claim. For example, the portion of the specification cited by Applicants recites that 40 to 90% of the amount of solids is fibrous material, and 10 to 60% are additives and auxiliary substances (containing fillers). The specification does not specifically set forth what solids are described. Additionally, the specification does not specifically set forth that the fillers constitute 10 to 60%; the portion of the specification cited only recites that 10 to 60% are additives *and* auxiliary substances (containing fillers). Additionally, the claims do not specifically recite fibrous material, additives and auxiliary substances (containing fillers). Therefore, such a recitation that “solids” is intended to imply fibrous material, additives and auxiliary substances (containing fillers) is outside the scope of the claimed invention.

As set forth above, although Applicants may be his or her own lexicographer, Examiner can find no reference in the specification that Applicants intended to define “solids” in any manner such that “solids” necessarily entails a specific structure or composition.

Regarding Applicants' arguments that fine and flexible are definite, Examiner respectfully disagrees. The claim is not indefinite because it is unclear how to determine fineness and flexibility. The claim is indefinite because it is unclear what is intended by a “fine and flexible coat” such that the scope of the claim is definite. It is unclear what type of coat would be considered fine and/or flexible such that one of ordinary skill in the art would know

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what is intended to be within the scope of the claim, since the terms are not defined by the specification and the terms are subjective without a standard of comparison or units to which a degree of fineness and a degree of flexibility are measured.

Claim Rejections - 35 USC § 102/103

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-13 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by, or alternatively under 35 U.S.C. 103(a) as obvious over, WO 01/79606 to Grönroos.

Regarding claims 1-13 and 25, Grönroos teaches a fibrous web containing a filler, wherein the filler is a substance in granular form, having a rotationally symmetrical shape and an inner part and a crust part, whereby the density of the inner part is lower than the crust part, wherein the density of the inner part is about 10 to 90% of that of the crust part (see entire document including page 1 lines 3-26, page 3 lines 2-9, page 4 line 28 to page 5 line 31, page 7 lines 4-34, page 8 lines 9-19, page 9 lines 19-29, page 10 lines 3-29, page 11 lines 25-34, page 12 lines 5-9, page 12 line 32 to page 13 line 4).

Regarding claims 1-13 and 25, Grönroos does not appear to specifically teach that the amount of filler used is 3 to 60% of an amount of solids and 30% to 60% of the amount of solids. However, as set forth above, it is unclear what solids and what amount of solids the amount of filler is compared to in the claimed invention. Absent evidence to the contrary, the amount of filler in Grönroos appears to be 3 to 60% and 30% to 60% of any amount of solids present or not present in the claimed invention. Additionally, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the amount of filler, motivated by the desire of forming a conventional fibrous web containing a filler suitable for the intended application and as Grönroos suggests that the properties of the coated base may be manipulated by the thickness of the coating and that the coating is generally optimizable based on the desired coverage and properties.

Regarding claim 2, the density of the inner part of the filler granule is 40 to 80% of that of the crust part (page 11 lines 25-34).

Regarding claim 3, the filler granule consists of pigment particles and a binder (page 9 line 31 to page 10 line 2, page 10 lines 19-23, Claim 27).

Regarding claim 4, the density of the pigment particles is 1500 to 7000 kg/m³ (page 7 lines 22-28).

Regarding claim 5, the density of the filler granule is 400 to 6300 kg/m³, whereby the density of the inner part is about 50 to 5700 kg/m³, and the density of the crust part is about 600 to 6300 kg/m³ (page 7 lines 22-28, page 11 lines 25-34).

Regarding claim 6, the inner part of the filler granule contains rougher pigment particles in relation to the crust part (page 5 lines 5-12).

Regarding claim 7, the porosity of the inner part of the filler granule is higher than that of the crust part, whereby the pore volume of the inner part is 10 to 70% by volume (page 11 lines 25-34).

Regarding claim 8, the crust part of the filler granule comprises metal silicate, metal sulphate or metal carbonate particles, which are bound to one another by means of a cross-linked binder, whereby they form a fine and flexible coat that surrounds the inner part (page 10 lines 3-11, page 12 lines 5-9).

Regarding claim 9, the filler particles of the filler granule comprise any inorganic substance, for example, kaolins, ground or precipitated calcium carbonates (page 10 lines 3-5).

Regarding claim 10, the particle size (ϕ) of the granulated filler is 1 to 100 μm (page 11 lines 25-34).

Regarding claim 11, the substance in the granular form is plastically deformable under the effect of pressure and/or temperature (page 7 lines 30-34).

Regarding claims 12 and 13, Grönroos appears to inherently teach that the web contains 3 to 30% by weight of the filler in granular form, whereby the bonding strength of the fibrous web is essentially the same as that of a corresponding fibrous web that contains no filler and that the web contains over 30% by weight of the filler in granular form. In addition, Grönroos teaches that the thicker the coating layer applied onto the web, the better the properties of the coated base paper are covered in connection with the coating (page 3 lines 2 and 3). Additionally, Grönroos teaches the thickness of the coating is generally optimized so that desired coverage and degree of properties are achieved (page 3 lines 3-8). Absent unexpected results, it would have been obvious to one of ordinary skill in the fibrous web art at the time the invention was made to

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optimize the weight of the filler in granular form, as Grönroos suggests that the properties of the coated base may be manipulated by the thickness of the coating and that the coating is generally optimizable based on the desired coverage and properties.

In the event it is shown that Grönroos does not disclose the claimed invention with sufficient specificity, the invention is obvious because Grönroos discloses the claimed constituents and discloses that they may be used in combination.

Claim Rejections - 35 USC § 103

7. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as obvious over Grönroos in view of US Pub. No. 2003/0106658 to Ilmonen.

Regarding claims 12 and 13, in the event it is shown that optimizing the filler weight in the web would not have been obvious to one of ordinary skill in the fibrous web art, Ilmonen teaches a similar filler comprising kaolin and a binder wherein the fibrous web weighs 50-450 g/m² or 30-250 g/m², preferably 30-80 g/m², and the coating weighs approximately 50-70 g/m² (Ilmonen, paragraphs 0003, 0005-0007, 0031, 0039, 0040, 0046, 0055, 0056). It would have been obvious to one of ordinary skill in the fibrous web art at the time the invention was made to form the invention of Grönroos, with the fibrous web and coating weights, as taught by Ilmonen, motivated by the desire to form a conventional fibrous web which is bright while maintaining the smoothness and the gloss of the paper.

Response to Arguments

8. Applicants' arguments filed June 18, 2008, have been fully considered but they are not persuasive. Applicants argue that the Grönroos reference does not disclose the limitation requiring that the filler used is 3 to 60% of an amount of solids and 30% to 60% of the amount of solids. Additionally, Applicants argue that Examiner's statement "absent evidence to the contrary" is analogous to taking Official Notice. Additionally, Applicants argue that the amount of solids is clear. Additionally, Applicants argue that Examiner's citation of Grönroos does not disclose why it would have been obvious to vary the amount of filler. Additionally, Applicants argue that the claimed range is unconventional for fillers.

Regarding Applicants' arguments, Examiner respectfully disagrees. As set forth above, the limitation is unclear as the claims attempt to compare the amount of filler as a percentage against an amount of solids, without providing a proper standard as to what amount of solids, if any, are present in the claimed invention. Absent evidence to the contrary, the amount of filler appears to be 3 to 60% and 30% to 60% of any amount of solids present or not present in the claimed invention. Additionally, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the amount of filler, motivated by the desire of forming a conventional fibrous web containing a filler suitable for the intended application and as Grönroos suggests that the properties of the coated base may be manipulated by the thickness of the coating and that the coating is generally optimizable based on the desired coverage and properties.

Regarding Applicants' argument that "absent evidence to the contrary" is analogous to taking Official Notice, Examiner respectfully disagrees. Examiner did not recite that an amount

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of filler is common knowledge in the art nor recite that any fact or value relied upon was taken as Official Notice. Based on the indefiniteness of the claims as set forth above, the amount of filler is based on a percentage of any solids, either within or without the claimed invention. Therefore, the indefinite scope of the claims includes any solids and any amount of filler may be any percentage of any amount of solids.

Regarding Applicants' argument that the amount of solids is clear, Examiner respectfully disagrees. As set forth above, "an amount of solids" appears to reference solids which may be within or without the claimed invention. In other words, the scope of the claim requiring a certain amount of filler in comparison to any amount of any solids is indefinite since the claim appears to cover an amount of filler in comparison to solids which may or may not be within the scope of the claimed invention. As presently constructed, conceivably any solid could be used as a standard to which to compare the amount of filler. Therefore, it is unclear how the expression or format of the claim makes clear the boundaries of the subject matter since the claims, as presently constructed, do not appear to have any boundaries, thus rendering the claim indefinite.

Regarding Applicants' argument that Grönroos does not disclose why it would have been obvious to vary the amount of filler, Examiner respectfully disagrees. Grönroos suggests that the properties of the coated base may be manipulated by the thickness of the coating (page 3). Additionally, Grönroos discloses that the thicker the coating layer applied onto the web, the better the properties of the coated base paper are covered in connection with coating. Additionally, Grönroos discloses that it might be necessary to coat the paper once, twice or even three times. Therefore, Grönroos teaches that varying the amount of filler was contemplated.

Regarding Applicants' argument that the claimed range is unconventional for fillers, Examiner respectfully disagrees. Applicants do not appear to argue that the prior art invention is not substantially similar in structure and composition as the claimed invention. The prior art teaches a filler in granular form having a rotationally symmetrical shape and an inner part and a crust part, with the claimed density of the inner part to that of the crust part, wherein the filler granule consists of pigment particles and a binder, the crust part comprising metal silicate, metal sulphate or metal carbonate particles bound to one another by a cross-linked binder, and wherein the particle size of the granulated filler is 1 to 100 μm (page 1 lines 3-26, page 3 lines 2-9, page 4 line 28 to page 5 line 31, page 7 lines 4-34, page 8 lines 9-19, page 9 lines 19-29, page 10 lines 3-29, page 11 lines 25-34, page 12 lines 5-9, page 12 line 32 to page 13 line 4). Additionally, similar to the claimed invention, the fibrous web comprises paper or cardboard. Additionally, Grönroos suggests that the properties of the coated base may be manipulated by the thickness of the coating, including applying a thicker coating or multiple coatings to enhance the properties of the fibrous web. Since the prior art teaches a substantially similar structure and invention as the claimed invention, and Applicants do not appear to argue differences between the prior art invention and the claimed invention, it appears that applying the coating of filler to the fibrous web would result in substantially similar properties. Additionally, it naturally flows that optimizing the percentage of the filler is within the ordinary skill of the art and therefore, it is unclear how the properties graphically depicted in the specification would be unexpected. Additionally, it should be noted that the properties set forth in Applicants' arguments are not claimed, and are therefore outside the scope of the claimed invention.

Conclusion

9. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Y. Choi whose telephone number is (571)272-6730. The examiner can normally be reached on Monday - Friday, 08:00 - 15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Piziali/
Primary Examiner, Art Unit 1794

/Peter Y Choi/
Examiner, Art Unit 1794